Volta Monitor user manual

Sommario

1 Volta Monitor 3
2 System requirements 3
3 How to use Volta Monitor 4
4 User Manual 5
4.1 Connections to Apache Cassandra 5
4.2 Setup new connection 5
4.3 Connections Editor 7
4.4 Help 8
4.5 Language 8
4.6 Home section 8
4.6.1 Nodes Section 10
4.6.2 Performance section 14
4.6.3 Keyspaces section 15
5 Volta Monitor license 16

1 Volta Monitor

Volta Monitor is a visual tool for monitoring an Apache Cassandra cluster, inspecting each node and obtaining information about keyspaces and tables.

For further information about Volta Monitor (manual, latest release, etc) and Satellite Volta project, please visit www.satellitevolta.com or send an email to support@satellitevolta.com for technical support.

2 System requirements

To use Volta Monitor, a JRE (Java Runtime Environment) version 7 or greater (www.java.com) is required. Moreover a minimum screen resolution of 1280x1024 is required.

3 How to use Volta Monitor

Volta Monitor is available on www.satellitevolta.com both as a distribution package for Windows system (in .zip format) and Linux system (in .tar.gz format), and as an installer for Debian and Ubuntu distributions (in .deb format) and CentOS distributions (in .rpm format).

If you chose the distribution package, to start using Volta Monitor, follow these steps:

- Decompress the Volta Monitor distribution package.
- Launch Volta Monitor by double clicking on *volta-monitor-x.y.z.jar* or, from a shell/command prompt, execute:

  java -jar volta-monitor-x.y.z.jar

where *x.y.z* is the Volta Monitor version you have just downloaded.

If you chose the installer package, to install it, run one of the following commands, depending on your distribution:

- On Debian/Ubuntu:

  sudo dpkg –i volta-monitor_x.y.z-k_all.deb

- On CentOS:

  sudo rpm –i volta-monitor_x.y.z-k_noarch.rpm

  where *x.y.z-k* is the Volta Monitor version you have just downloaded..

Once the installation ended, you can start Volta Monitor by running the following command:

volta-monitor

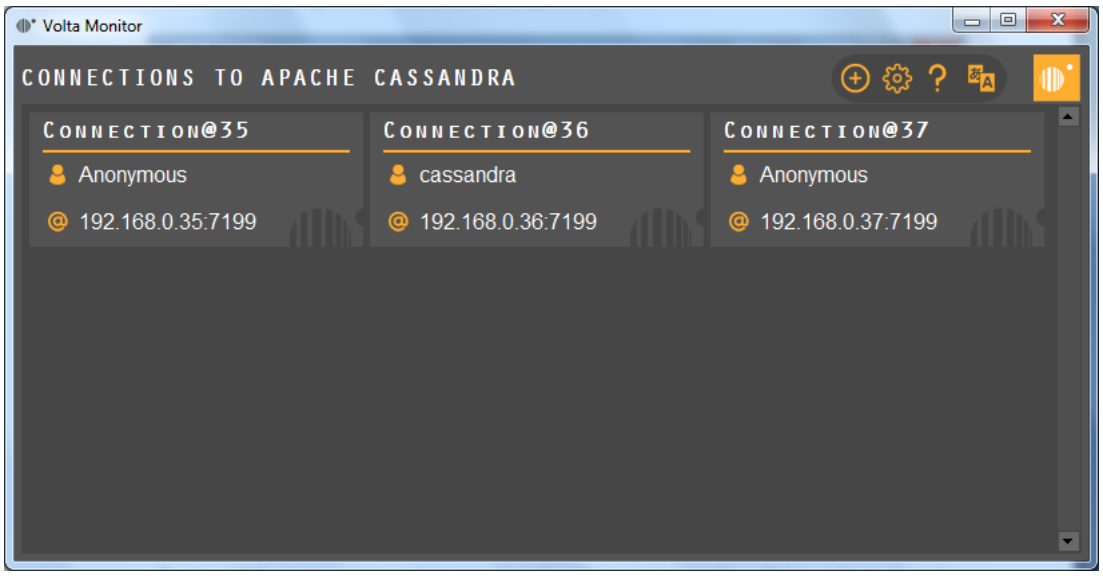
At first launch, Volta Monitor creates the folder *.volta-monitor* in the user account folder; in that folder the application will save connections data, logs, preferences, etc.

4 User Manual

The next pages introduce the Volta Monitor tool, giving details about the main features available.

4.1 Connections to Apache Cassandra

Launch Volta Monitor and, after the splash screen, you will see the list of connections to Apache Cassandra nodes.



Each connection shows some details as: name of connection, user name, default keyspace (if defined), IP address and port.

If you click on a connection, an Apache Cassandra node will be selected to be inspected by Volta Monitor.

4.2 Setup new connection

Clicking on the button "Setup a new connect" you can create a new connection to an Apache Cassandra node.

Fill in the form and then click on:

- Test

  Connects to the node to check the configuration.
- Save

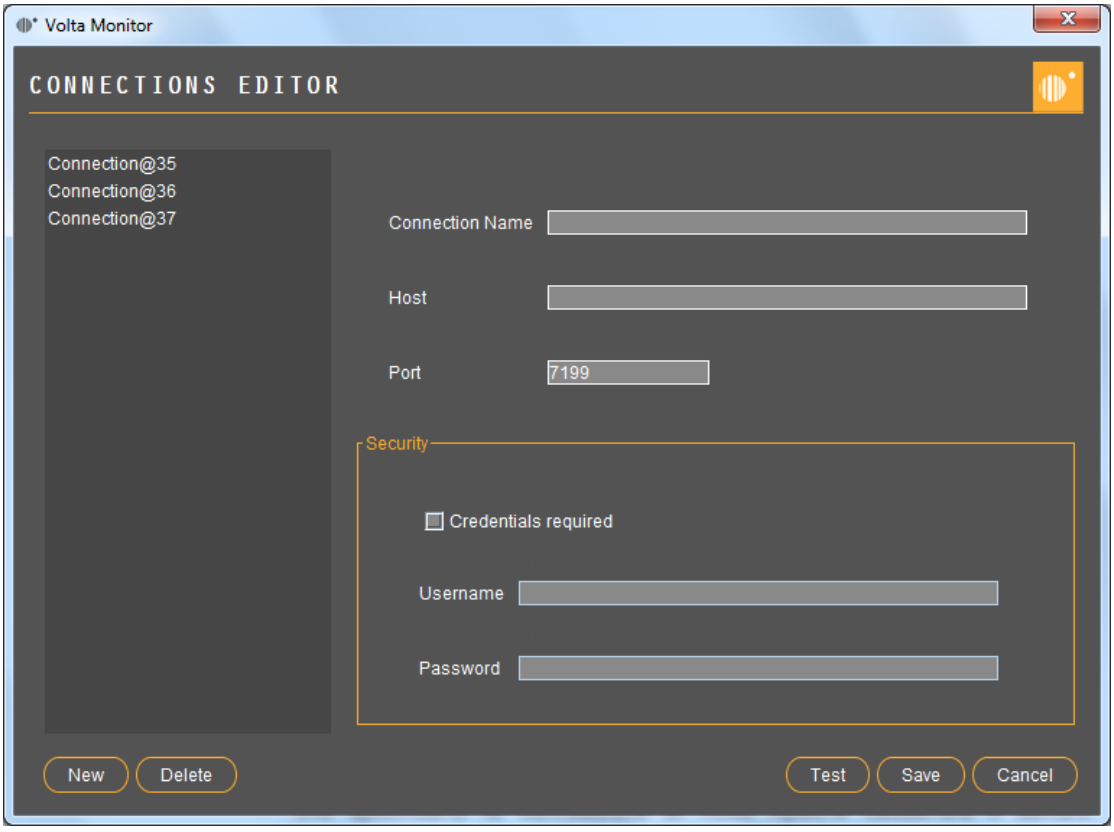
  Saves connection for later use.

- Cancel

  Cancels the action.

4.3 Connections Editor

Clicking the “Edit Connections” button you can configure connections to Apache Cassandra nodes.



The leftmost list shows the available connections.

Clicking on one of them you can change the parameters (node IP, type of access, username, password, default keyspace) and execute the following actions:

- Test

  Connects to the node to check the configuration.

- Save

  Saves connection for later use.
- Cancel

  Cancels the action.

Moreover, you can also execute the following actions:

- New

  Creates a new connection, filling in the form on the right.
- Delete

  Deletes the connection to the Apache Cassandra node selected.

4.4 Help

The “Help” button shows a menu with two items: “Volta Monitor License” with information about the terms of use and “About Volta Monitor” with details on current version.

The Help button is also available in the home section, after establishing the connection with a node.

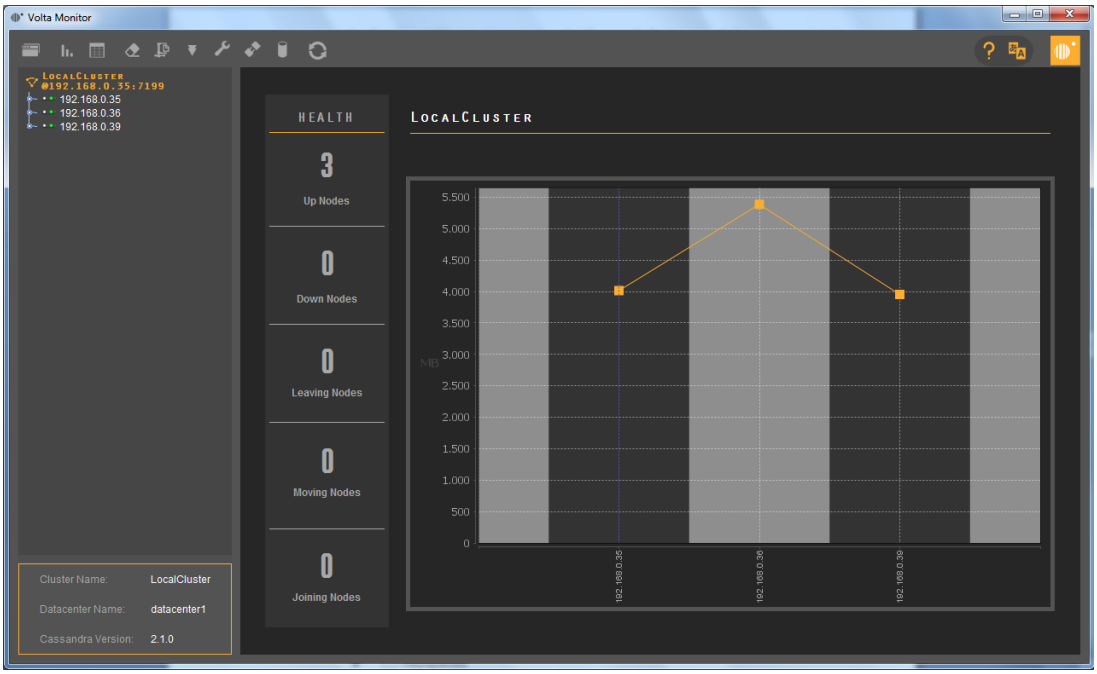
4.5 Language

Using the “Language” button you can select the favorite language.

The Language button is also available in the home section, after establishing the connection with a node.

4.6 Home section

In the first panel “Connections to Apache Cassandra”, you can click on a connection to start inspecting an Apache Cassandra node



The home section shows information about the cluster and its topology.

In the toolbar you can find, among others, the following buttons:

- Connections Editor
  - Opens the Connection Editor
- Performance
  - Shows the performance panel, with details about cluster, nodes and keyspaces
- Keyspace
  - Shows details about keyspaces and tables
- Some other buttons (for node management) will be described below.
- Refresh
  - Refreshes all the information in the section home..

On the left, you can a tree of Apache Cassandra nodes. For each node you can find the following information:

- Datacenter
- Host name
- Size of data
- Status (UP, DOWN, JOINING, LEAVING, MOVING)

And, below the tree, you can read:

- The name of the cluster
- The name of the datacenter
- The version of Apache Cassandra

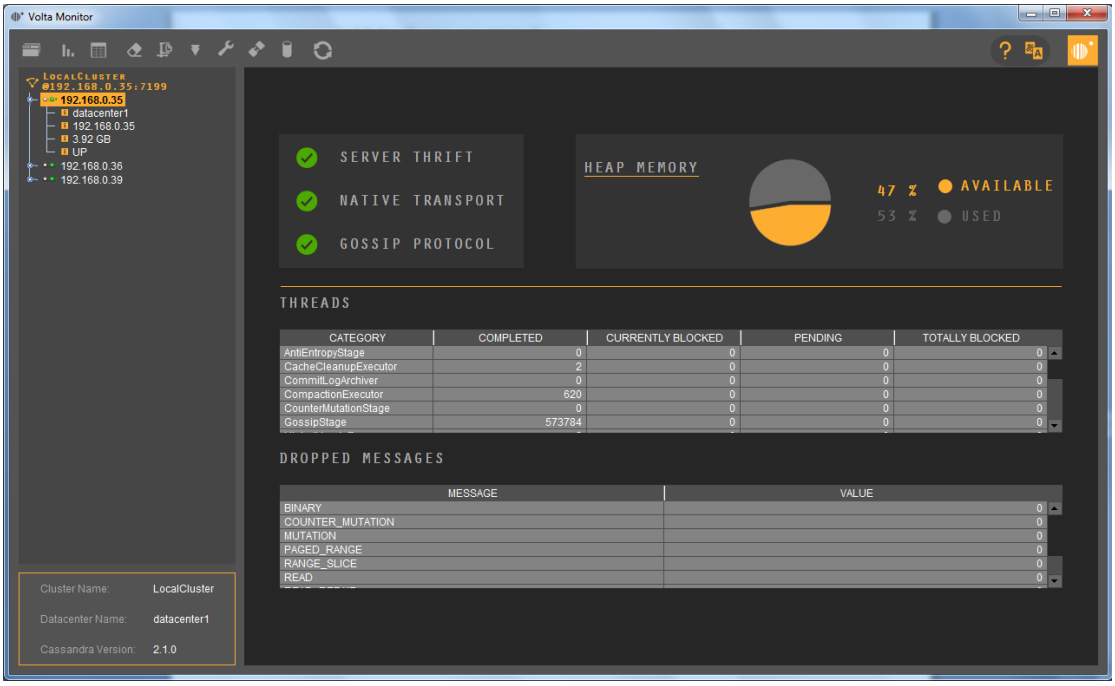
On the rightmost area, you can see a bar graph with nodes and their size in MB.

Clicking on a tree node, a lot of information about that node are shown on the right.

At any time, you can go back to the previous bar graph clicking on the name of the cluster in the tree root.

4.6.1 Nodes Section

Clicking on a tree node in the Home Section, a lot of information about that node are shown on the right.

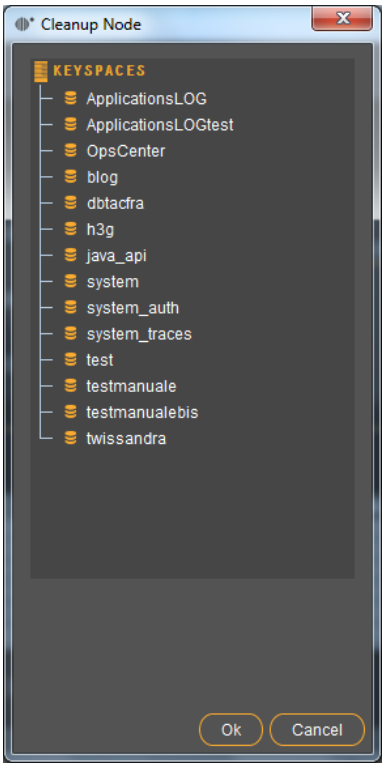


The nodes section shows the following details:

- Node status and Apache Cassandra services status (Thrift Server, Native Transport, Gossip Protocol)
- Heap memory usage
- Threads status
- Dropped messages

Moreover, you can use the toolbar to execute the following actions:

- Cleanup
  - Clean up tables: select a keyspace, then select the tables to clean (holding down the CTRL key) and press Ok.



- Compaction
  - Tables compaction: select a keyspace, then select the tables to compact (holding down the CTRL key) and press Ok.

- Flush
  - Tables flush: select a keyspace, then select the tables to flush (holding down the CTRL key) and press Ok.

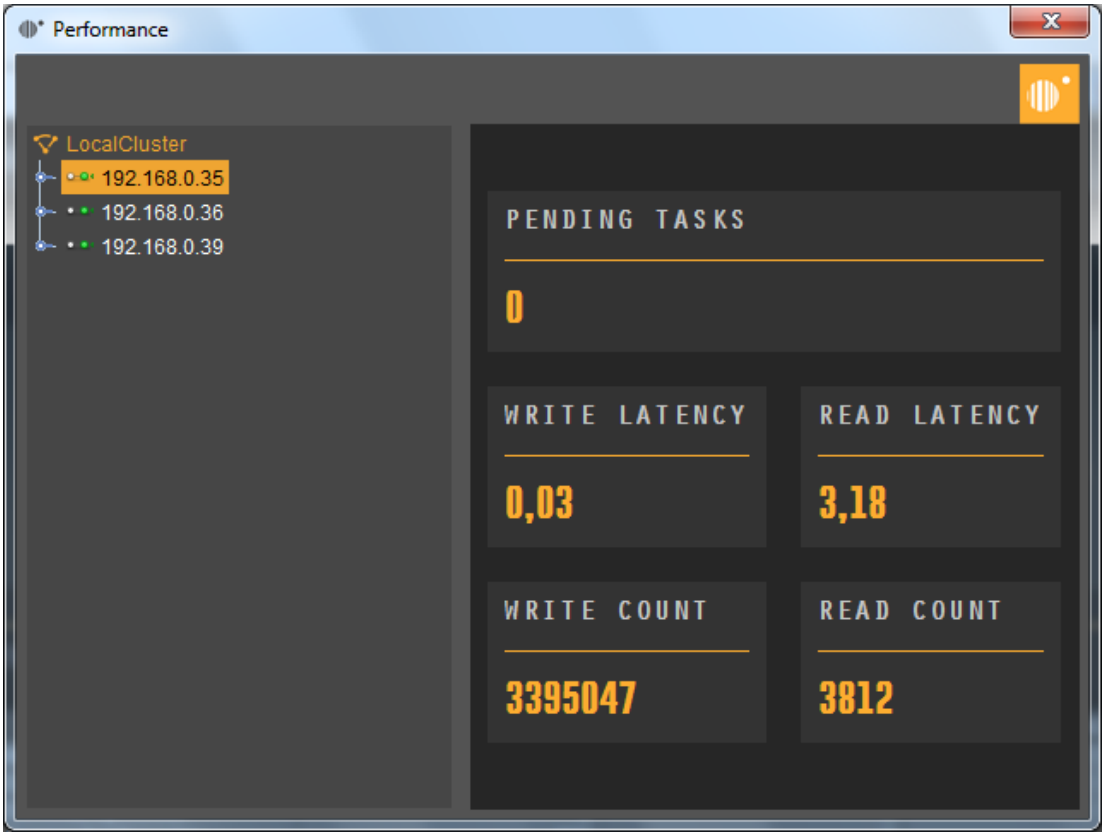
- Repair
  - Tables repair: select a keyspace, then select the tables to repair (holding down the CTRL key) and press Ok.

- Decommission
  - Node decommissioning: you can decommission the current node. You will be asked to confirm this action.

- Drain
  - Node drain: you can drain the current node. You will be asked to confirm this action.

4.6.2 Performance section

Clicking on the Performance button of the toolbar, you can see a panel with information about the cluster performance.



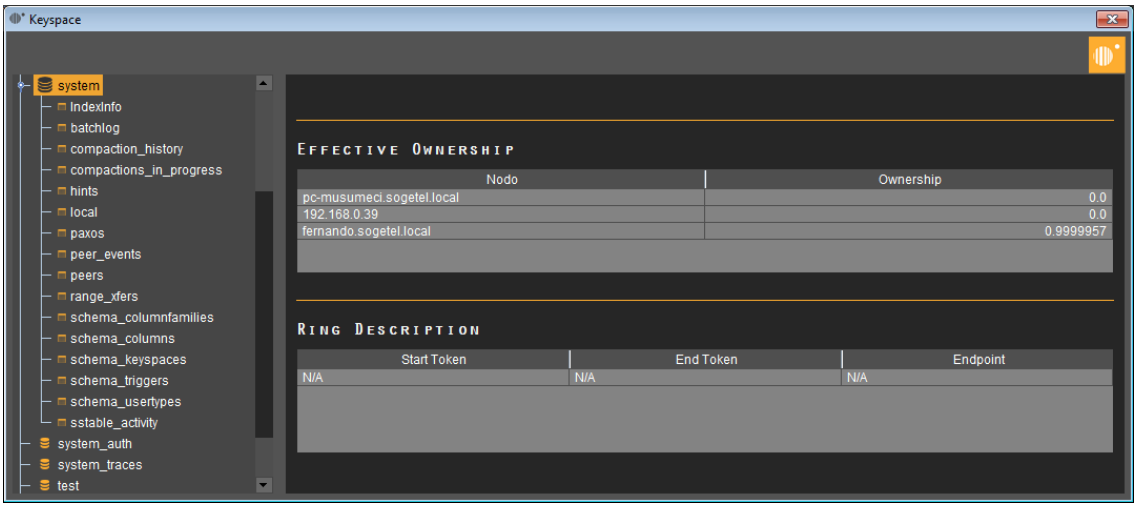
The Performance section shows the following details about performance of the Apache Cassandra cluster:

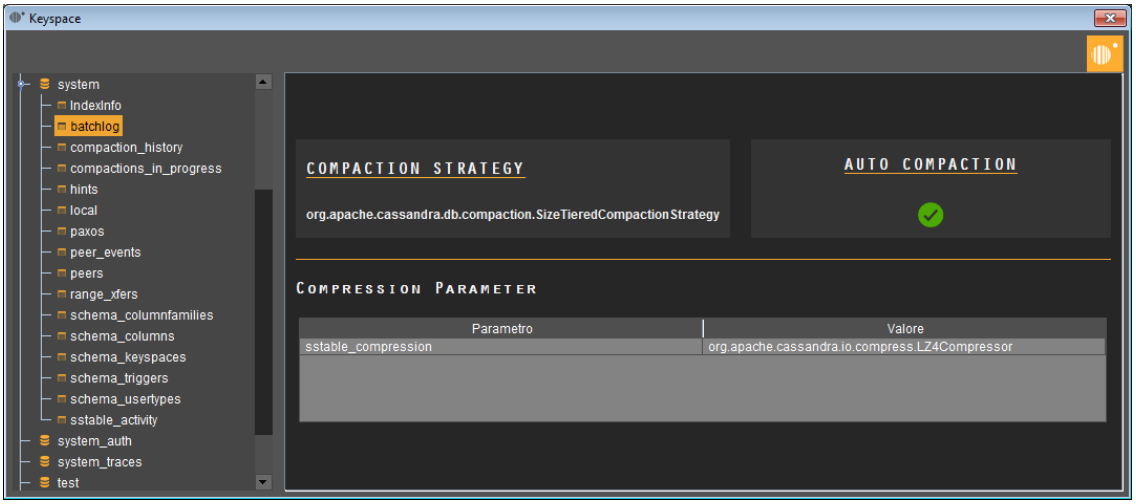
- Number of pending tasks
- Write latency
- Read latency
- Write operations counter
- Read operations counter

You can have access to this information about the whole cluster, a node or a keyspace.

4.6.3 KEYSPACES SECTION

Clicking on the Keyspace button of the toolbar, you can see a panel with information about the keyspaces saved in the cluster cluster.





The Keyspaces section shows the following details about keyspaces in the Apache Cassandra cluster:

- List of keyspaces:
  - Name of keyspace
  - Effective Ownership: distribution of the keyspace data on the cluster nodes
  - Ring Description: description of the cluster ring keys

- For each table in a keyspace, the following information are shown:
  - Name of table
  - Name of keyspace
  - Compaction strategy: class name of the Compaction Strategy implementation
  - Compression Parameters: compression parameters values

5 Volta Monitor license

Volta Monitor

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- snakeyaml-1.11.jar

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